

Designing Cisco Enterprise Wireless Networks (ENWLSD) v1.0

Duration 5 Days

COURSE DESCRIPTION

The Designing Cisco Enterprise Wireless Networks (ENWLSD) v1.0 course gives you the knowledge you need to design Cisco® wireless networks. The course covers design specifics from scenario design concepts through the installation phase and into post-deployment validation.

This course, including the self-paced material, helps prepare you to take the exam, Designing Cisco Enterprise Wireless Networks (300-425 ENWLSD), which leads to the new CCNP® Enterprise and Cisco Certified Specialist – Enterprise Wireless Design certifications.

This course will help you:

- Gain the knowledge you need to plan advanced designs of Cisco wireless products
- Qualify for professional-level job roles in wireless networking
- Prepare for the Designing Cisco Enterprise Wireless Networks (300-425 ENWLSD) exam¹

COURSE OBJECTIVES

- Describe and implement a Cisco-recommended structured design methodology
- Describe and implement industry standards, amendments, certifications, and Requests For Comments (RFCs)
- Describe and implement Cisco enhanced wireless features
- Describe and implement the wireless design process
- Describe and implement specific vertical designs
- Describe and implement site survey processes
- Describe and implement network validation processes.

COURSE OUTLINE

Module 1: Describing and Implementing a Structured Wireless Design Methodology

- Importance of Planning Wireless Design with a Structured Methodology
- Cisco Structured Design Model
- Cisco Design Guides and Cisco Validated Designs for Wireless Networks
- Role of the Project Manager When Designing Wireless Networks

Module 2: Describing and Implementing Industry Protocols and Standards

- Wireless Standards Bodies
- Institute of Electrical and Electronics Engineers (IEEE) 802.11 Standard and Amendments
- Wi-Fi Alliance (WFA) Certifications
- Relevant Internet Engineering Task Force (IETF) Wireless RFCs
- Practice Activity

Module 3: Describing and Implementing Cisco Enhanced Wireless Features

- Hardware and Software Choices for a Wireless Network Design
- Cisco Infrastructure Settings for Wireless Network Design
- Cisco Enhanced Wireless Features

Module 4: Examining Cisco Mobility and Roaming

- Mobility and Intercontroller Mobility in a Wireless Network
- Optimize Client Roaming in a Wireless Network
- Cisco Workgroup Bridge (WGB) and WGB Roaming in a Wireless Network

Module 5: Describing and Implementing the Wireless Design Process

- Overview of Wireless Design Process
- Meet with the Customer to Discuss the Wireless Network Design
- Customer Information Gathering for a Wireless Network Design
- Design the Wireless Network
- Deployment of the Wireless Network
- Validation and Final Adjustments of the Wireless Network
- Wireless Network Design Project Documents and Deliverables

Module 6: Describing and Implementing Specific Vertical Designs

- Designs for Wireless Applications
- Wireless Network Design Within the Campus
- Extend Wireless Networks to the Branch Sites

Module 7: Examining Special Considerations in Advanced Wireless Designs

- High-Density Designs in Wireless Networks
- Introducing Location and Cisco Connected Mobile Experiences (CMX) Concepts
- Design for Location
- FastLocate and HyperLocation
- Bridges and Mesh in a Wireless Network Design
- Redundancy and High Availability in a Wireless Network

Module 8: Describing and Implementing the Site Survey Processes

- Site Survey Types
- Special Arrangements Needed for Site Surveys
- Safety Aspects to be Considered During Site Surveys
- Site Survey Tools in Cisco Prime Infrastructure
- Third-Party Site Survey Software and Hardware Tools

Module 9: Describing and Implementing Wireless Network Validation Processes

- Post-installation Wireless Network Validation
- Making Post-installation Changes to a Wireless Network
- Wireless Network Handoff to the Customer
- Installation Report

Lab outline

- Use Cisco Prime Infrastructure as a Design Tool
- Create a Predictive Site Survey with Ekahau Pro
- Perform a Live Site Survey Using Access Point on a Stick (APoS)
- Simulate a Post-installation Network Validation Survey

PREREQUISITES

Before taking this course, you should have:

- General knowledge of networks
- General knowledge of wireless networks
- Routing and switching knowledge

Either of the following combinations of Cisco courses can help you meet these prerequisites:

- Implementing Cisco Wireless Network Fundamentals (WIFUND) and Interconnecting Cisco Networking Devices, Part 1 (ICND1)
- Coming soon: Implementing and Operating Cisco Enterprise Network Core Technologies (ENCOR) and Understanding Cisco Wireless Foundations (WLFNDU)

WHO SHOULD ATTEND

This course is for wireless engineers who work in the following roles:

- Consulting systems engineer
- Network administrator
- Network engineer
- Network manager
- Sales engineer
- Systems engineer
- Technical solutions architect
- Wireless design engineer
- Wireless engineer

WHAT TO EXPECT IN THE EXAM

This course will help you prepare for the Designing Cisco Enterprise Wireless Networks (300-425 ENWLSD) exam. This exam tests your knowledge of wireless network design, including site surveys, wired and wireless infrastructure, mobility, and WLAN high availability.

After you pass 300-425 ENWLSD:

- You earn the Cisco Certified Specialist – Enterprise Wireless Design certification.
- You satisfy the concentration requirement for the new CCNP Enterprise certification. To complete your CCNP Enterprise certification, pass the Enterprise core exam, Implementing Cisco Enterprise Network Core Technologies (350-401 ENCOR).